

WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule encoding an IL-17 receptor-related protein selected from the group consisting of:

5 (a) an isolated nucleic acid molecule of SEQ. ID NO: 1, 2, 3 or 4 which encodes an IL-17 receptor-related protein;

(b) an isolated nucleic acid molecule which is complimentary and hybridizes to the nucleic acid molecules of (a); and

10 (c) isolated nucleic acid molecule differing from the isolated nucleic acid molecules of (a) or (b) in codon sequence due to the degeneracy of the genetic code, and which encodes an IL-17 receptor-related protein.

15 2. A fragment of nucleic acid molecule of claim 1 that is at least 10 bases in length and which will selectively hybridize to nucleic acid molecule encoding an IL-17 receptor-related protein.

3. The nucleic acid molecule of claim 2, wherein said nucleic acid molecule is used as an anti-sense molecule to inhibit the expression of an IL-17 receptor-related protein.

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4. The nucleic acid molecule of claim 2, wherein said nucleic acid molecule is used for chromosomal mapping or mutation analysis of gene encoding an IL-17 receptor-related protein.

5. A genomic DNA encoding an IL-17 receptor-related protein, wherein said genomic DNA hybridizes to nucleic acid molecule of claim 1.

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6. A vector comprising a nucleic acid molecule selected from the group consisting of SEQ. ID NO: 1, 2, 3 and 4 adapted for expression in a cell and has regulatory elements necessary for expression of said nucleic acid molecule in the cell.

7. A cell transfected with the vector of claim 6,
wherein said vector expresses an IL-17 receptor-related protein.

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8. The cell of claim 7, wherein said cell is selected
from group consisting of bacterial cells, mammalian cells, plant cells
and insect cells.

9. An IL-17 receptor-related protein encoded by
nucleic acid molecule selected from the group consisting of SEQ ID
No. 3 and 4, wherein said protein is about 24, 33, 56, 47, 75, 127,
and 150 kD in size as detected by western blot analysis in BXH2
leukemia cell.

10. A peptide derived from the protein of claim 9,
wherein said peptide is at least 4 amino acids in length.

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11. An antibody that binds specifically to the protein
of claim 9.

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12. An antibody that binds specifically to the peptide
of claim 10.

10 13. An IL-17 receptor-related protein encoded by
nucleic acid molecule of claim 1, wherein said protein has the amino
acid sequence selected from the group consisting of SEQ. ID NO: 5,
6, 7 and 8.

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14. A peptide derived from the protein of claim 13,
wherein said peptide is at least 4 amino acids in length.

15. An antibody that binds specifically to the protein
20 of claim 13.

16. An antibody that binds specifically to the peptide of claim 14.

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17. A method of stimulating the secretion of cytokines from a cell, comprising the step of:

binding a ligand to the IL-17 receptor-related protein, Evi27, wherein said binding will activate Evi27 and results in secretion of cytokines from said cell.

18. The method of claim 17, wherein said cytokines are selected from the group consisting of IL-1, IL-8 and TNF- α .

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19. The method of claim 17, wherein said cell is selected from the group consisting of hematopoietic cells, leukemia cells and kidney cells.

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20. A method of modulating the expression and activity of an IL-17 receptor-related protein, Evi27, comprising the step of:

5 contacting a molecule to a cell, wherein the binding of said molecule to Evi27 mRNA or protein results in increased or decreased expression and activity of the Evi27 protein.

10 21. The method of claim 20, wherein said molecule is selected from the group consisting of anti-sense oligonucleotides, small molecule that binds to Evi27, modified IL-17E and soluble form of the Evi27 receptor.